



TACOM-Rock Island Safety Office

Issue 01-01

October 2000

Special points of interest:

- Have you signed-up for the Radiation Safety Training course yet?
- Do you know your RSO and what his responsibilities are?
- Your leak test samples from CAM, ICAM, M43A1, and ACADA are to be sent to the U.S. Army Soldier and Biological Chemical Command, starting immediately.
- All serial-numbered wipe-tested material must be reported to the RATTs system.

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Radiation Safety Information Bulletin

Late Breaking News

RSO Reference Website

There is a new content rich website on the net called the Radiation Safety Officer (RSO) Reference Website (<https://aeps2.ria.army.mil/services/darsocd/reference.cfm?top=1&bot=1>). It is located on the password protected Army Electronic Product Support (AEPS) system and contains the contents of the famous DA Radiation Safety Officer Compact Disk (CD). The advantage of posting this information on net is that it is easier to keep up to date. However, the CD will still be offered, available at: http://www.sed.monmouth.army.mil/rdit/pages/da_rso.htm.

RSO Conference 2000

You are cordially invited to go to the 2nd Annual Radiation Safety Officer (RSO) Conference 2000--the web site that is: <http://www.acala1.ria.army.mil/LC/R/RS/conf.htm>. View lecture briefing slides, information papers, checkout the attendance list, and see pictures of now famous people galore! You never knew attending a radiation safety conference could be so much fun? Don't despair if you missed this one; you can still attend the real thing next year!



Ask the Experts

Are you frequently asking yourself radiation safety questions? Now you can ask



the experts! We've recently added a "Frequently Asked Question" (FAQ) to the RSO Reference Website (<https://aeps2.ria.army.mil/services/darsocd/faq/faq.htm>). Remember, there are no stupid questions! If your question isn't answered, or if you have a better answer than the one we've provided, we'd like to hear from you. Email your question and/or answer and we will post it! Hey, nobody can be an expert in everything!

RSO Addresses

Ever wanted to find an address of your favorite Radiation Safety Officer (RSO), but couldn't find it? Now there is a page on the RSO Reference Website that lists DLA, DA and AMC RSO addresses. Check it out at: <https://aeps2.ria.army.mil/services/darsocd/address.htm>.

aeps2.ria.army.mil/services/darsocd/address.htm. Note this list can be updated/expanded ad infinitum. E-mail us your additions.

New License Amendment

The Nuclear Regulatory Commission (NRC) recently issued TACOM-RI a new amendment to license 12-00722-06 (Amendment 38). This amendment makes it legal to use the M67 Mortar Sight Unit on all mortar systems: M120/M121, M252 and M224 inclusively. You may pick up a copy at: <http://www.acala1.ria.army.mil/LC/R/RS/postings.htm>. By the way, AMC licenses are also posted on the RSO Reference Website: <https://aeps2.ria.army.mil/services/darsocd/reference.cfm?top=5&bot=1>.

New Office Symbol

Note that our office symbol has changed to AMSTA-LC-SF, which also means we have a new email address: amsta-lc-sf@ria.army.mil.

Your Portal to the Net

As always, the TACOM-RI public website is an excellent doorway to experiencing the net. Just point your web browser to <http://www.acala1.ria.army.mil/LC/R/RS/safe.htm> and see what you'll discover!

Radiation Safety Training

It is that time of year when we start putting together our training schedule for the upcoming year. The Army Radiation Safety program has gone under some major changes, thanks to AR 11-9. Additional duties and responsibilities have been assigned to commanders whose units have radioactive material or radiation-generating devices. One of the most important responsibilities is that all personnel working with devices that contain radioactive material receive appropriate training on the potential hazards they may encounter when using or maintaining that equipment. We at the TACOM-RI Safety office offer this training and are looking for people to host our course. It is first come, first serve and the calendar fills up fast. If you have any questions or are interested in hosting a course, please contact me:

Wayne Cook
TACOM R.I. Safety
DSN 793-2429 Com 309 782-2429
e-mail: cookw@ria.army.mil

Here is a list of classes already Scheduled:

January 2001

9th-10th Tritium/NBC, Ft Bragg, NC
9th-12th Rad Safety, RIA, IL
23rd-26th Rad Safety, Ft Knox, KY

February 2001

12th-23rd Rad Safety, Hawaii

March 2001

20th-23rd Rad Safety, Ft Drum, NY

April 2001

10th-13th Rad Safety, RIA, IL

June 2001

12th-22nd Rad Safety, Italy/Germany

July 2001

17th-20th Rad Safety, Phoenix, AZ



How to Keep an Inventory

That's easy, just count. The End

If it were only that easy. There are ionizing and non-ionizing radioactive material inventories. In this article only the ionizing radioactive material inventory will be reviewed, briefly. Under the heading of Ionizing Radioactive Material there are:

1. Material covered under Nuclear Regulatory Commission licenses.
 - a. Radioactive material sources: calibrators, some low light markers, check sources, lead paint analyzers, etc...
 - b. Commodities containing radioactive materials: CAMs, CADs, ACADAs, engine blocks, compasses, Tritium fire control device, and many more.
2. Electronically produced radiation:

aviation and other types of industrial X-ray units, EOD assets, shipping and receiving portals, etc...

3. Generally licensed (Commercially procured items): smoke alarms, exit signs, some clocks, some front and rear sites, etc.
4. NORM material (Naturally Occurring Radioactive Material): items regulated by ARAs (Army Radiation Authorization), Museum pieces, Foreign Military Equipment, check sources, markers, etc...



Unfortunately, wherever your radioactive material is, you (the owning unit) are still responsible for it. It is still on your property book. That means whoever has the item listed on their hand receipt is responsible for it. This also means that just because an item has been loaned out it doesn't mean you are off the hook. So if you have a piece of equipment in the maintenance section you still must know exactly where the device is located (building room and installation if applicable), and identify it on your inventory record. If you have something "signed out" on temporary hand receipt the actual location must be annotated.

The good thing about maintaining inventories is that once the program is setup, and if it is updated regularly, the annual inventory becomes no more than the push of a "PRINT" key.

Radiation Safety Officer (RSO) Responsibilities

The Radiation Safety Officer (RSO) is an officer, enlisted person, or DA civilian employee appointed, in writing, by the Commander, to supervise the radiation protection program for the command. He or she should completed RSO training requirements as appropriate to the command level served.

The RSO is a person appointed in writing by the Commander to supervise the Radiation protection program for the command.

Following is a list of RSO duties found in AR 11-9. We realize that most of you are very familiar with this, but we thought they were important enough that they bear repeating so here they are:

Each Installation RSO will;

- (1) Direct the installation radiation safety program.
- (2) Assist TOE (Table of Organization and Equipment) units on the installation to meet requirements of NRC licenses and ARAs for radioactive commodities. In particular, the installation RSO will-



- (a) Assure that TOE unit personnel receive appropriate radiation safety training as necessary.
- (b) Meet all reporting requirements for accidents or incidents.
- (c) Assure appropriate inventory control per applicable technical publications and logistics regulations.
- (3) Notify the AMC RSSO when a building or area that currently or formerly contained radioactive commodities is scheduled for demolition or will no longer contain radioactive commodities. This is to provide AMC radioactive commodity license holders appropriate notice so that they can take decommissioning actions as necessary.

Each RSO (or LSO), including the instal-

lation RSO, will-

- (1) Perform or be responsible for the performance of all radiation safety functions that applicable Federal, DOD, and Army regulations and NRC license, Army reactor permit, and ARA conditions require.
- (2) Establish plans and procedures for handling credible emergencies involving radiation and radioactive materials. This includes coordination with civilian and military emergency response organizations as necessary.
- (3) Coordinate with supporting medical personnel to help assure that personnel receive appropriate occupational health surveillance (AR 40-5).
- (4) For an RSO with laser safety responsibilities, assume the responsibilities of an LSO as listed in section 1.3.2, ANSI Z136.1, except for occupational health responsibilities. (The RSO or LSO will assist the occupational health physician as necessary in meeting laser occupational health responsibilities.)

That's the list. Keep in mind that even though it may seem like a lot at times this list is only a minimum of what really needs to be done to conduct a great program. If there are any of these areas that we could help you in please feel free to write or call.



A Stitch in Time

Do you ever wonder how someone doing the exact same job you do always seems to have more free time? If you are a unit or activity RSO, do you ever ask yourself (or your boss) "How am I going to have enough time to do this?"

Well, you're not!

Not if you start from scratch all the time. Sometimes we get so immersed in what we're doing we forget to look around so we can see the forest through the trees. We tend to do things the way we were taught, which may not be the most efficient way of doing things.

Trying to do everything at once usually results in nothing being done completely.

There are many things the Unit RSO can do to reduce the time it takes to run their Radiation Safety Program; however, most require initial set-up

time. Implement these time saving hints one at a time because trying to do everything at once usually results in nothing being done completely. The following are just a few hints:

1. Conduct a detailed meter and swipe survey of each use, storage, and maintenance area prior to placing commodities that contain radioactive materials. If an area is already in use do a detailed survey as soon as possible. If there is an accidental release of material, a desire to change location, or if the commodity is superseded, your survey will drastically decrease the amount of time and resources needed to complete the action.
2. Generate a site map for each use, storage, and maintenance area. This will decrease the time it takes to do an area or termination survey.



3. Don't wait until the annual inventory to become familiar with the equipment you have. If you already know the locations of the items and have the serial numbers written down, at inventory time confirmation is easy. This method also will identify changes well in advance of the inventory date. At inventory time, when all radioactive material users trying to identify equipment at the same time, locating a missing item will be time consuming.

4. Ensure that all POCs know who you are. While trying to resolve an inventory or maintenance issue, or while responding to an incident/accident is not the time to introduce yourself as the Unit RSO.

Tailor your program to your mission but also try to minimize the time it takes you to administer your program.

Leak Testing Laboratory Change

This is a note from Mr. Gizicki at the Rock Island Arsenal Radiation Test Lab.

To All Our Valued Customers:

This notice is to inform your organization that the location of the radiation testing laboratory for processing leak test samples from chemical agent monitors (CAM), improved chemical agent monitors (ICAM), M43A1 detectors (CAD's) and advanced chemical agent detector alarms (ACADA) (M22) has changed. Send leak test samples from these commodities to the following address:

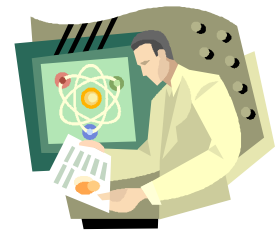
THIS CHANGE TAKES EFFECT IMMEDIATELY.

Send leak test samples from CAM, ICAM, M43A1 & ACADA to....

**U.S. ARMY SOLDIER and BIOLOGICAL
CHEMICAL COMMAND
ATTN: AMSSB-RCB-RSR
5905 PUTNAM RD
FORT BELVOIR, VA 22060-5448**

POC is Mrs. Joyce Kuykendall, DSN 584-7118 comm. 410-436-7118
NOTE: All tritium (H3) leak test samples are still to be sent to the RIA Radiation Test Lab to the following address:

**Rock Island Arsenal
Radiation Test Lab
SMARI-ES, Bldg 210 4th floor
Rodman Ave Rock Island IL 61299-5000**



It has been a pleasure serving your organization over the past eight years. We will continue to provide the best possible service to your organization for tritium (H3) leak testing.

*Thomas G. Gizicki
RIA Radiation Safety Officer
SIORI-ICS
DSN 793-7889*

Chemical Equipment Leak Tests

Heads up on changes coming.

Currently we have listed various chemical agent alarms and detection units in section 1 of TB 43-180. This can cause confusion since they are not TMDE items. Accordingly, the next revision of TB 43-180 will delete items from section 1 and add the following sub-paragraph to the front text (par. 6).



Leak Tests. The lead proponent for Chemical Agent Monitors (CAM) (including 416-301, 442-301, and 442-021), the Improved Chemical Agent Monitor (ICAM), and support of M8A1/M43A1 and the M88/M22 is the Project Manager, Nuclear, Biological and Chemical Command (SBCCOM). These items are not considered TMDE. Army Regulation 710-3, 31 Mar 1998, provides policy and procedural guidelines for performing and reporting leak tests. This regulation allows Army calibration teams to serve as a secondary source of field support maintenance in the event that the primary support structure is not available.

At installations having heavy concentra-

AR 710-3, Mar 98, provides policy and procedural guidelines for performing and reporting wipe tests.

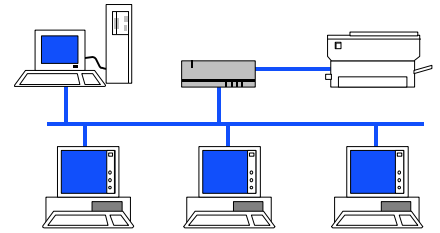
tion of soldiers, the preferred source of CAM support is from the MOS 35F personnel assigned to Direct Support Units, using the Radiation Testing and Tracking System (RATTS). Where the DS level support is not available, the U. S. Army TMDE Activity and the Combined Maintenance and Support Shops within the Army National Guard (ARNG) are authorized to use the TMDE recall system and to provide alternate support for customers with CAM material. All serial-numbered leak-tested material must be reported to the RATTS system. DA Label 80 will not be used to record leak test for referenced items. USATA and ARNG calibration teams will comply with interval and labeling requirements provided in the appropriate technical manuals/bulletins for specific CAM items.

All serial-numbered wipe-tested material must be reported to the RATTS system.



Radiation Testing and Tracking System (RATTS)

RATTS is a program established to maintain radioactive source serial number visibility and leak test results of all radioactive sources within the active Army, USAR, ARNG, and other DOD components. It is designed to provide strict control and identification of all radioactive sources for the purpose of user or maintainer safety. RATTS meets the requirements imposed by the NRC.



RATTS is a program designed to provide information on location and leak test currency on

RATTS is designed to provide information on location and leak test currency on individual or combination of elements. A total history of actions pertaining to the radioactive source will be maintained. The leak test data is also incorporated in the program. Information available on the leak test is the date and reading of all tests and the date of next required test. The program also flags all readings above the safety level to allow the UIT Central Registry to notify the current owner.

If you have any questions about this change please feel free to contact the SBCCOM RSO, Joyce Kuykendall. Joyce can be reached at (410) 436-7118 or DSN 584-7118 or email joyce.kuykendall@sbccom.apgea.army.mil.

Heard it Through the Grapevine

The ingenuity of the American soldier has been a mainstay of the Army through out our history. There have been some tales of people's ingenuity getting back to us that, quite frankly, have us concerned.

One of these stories involves the M43A1 Chemical Agent Detector. We have heard of people trying to alleviate poor airflow in this device by trying to blow high-pressure air or possibly nitrogen through the airflow tubing. This is an unauthorized procedure. Under no circumstance should anyone at any maintenance level attempt to blow high-pressure air or nitrogen through an M43A1 Chemical Agent Detector. There is a very high risk of contaminating personnel, equipment, and facilities with americium-241 (a close radiological relative of plutonium) if anyone attempts to use high-pressure air on this device.

If an M43A1 CAD fails the airflow test performed as part of PMCS checks and services in the 12 level technical manuals, the device must be turned over to direct support maintenance. Direct support maintainers are limited to the replacement of the pump module and the cell module containing the radioactive source per SOUM 98-2. A copy of the SOUM is available via the Army Electronic Support (AEPS) Network (<http://aeps.ria.army.mil/aepspublic.cfm>). Bottom line is to follow your TM and SOUM 98-2 at your level.

Another troubling thing that people are doing involves our old nemesis the M1A1 Collimator. After breaking a collimator, soldiers will do all sorts of crazy things with it. Some of those things include putting the broken M1A1 back in its carrying case when they believe it is damaged and transporting it to a maintenance facility or to the Radiation Safety Officer's location without double bagging it. This is not a good idea.

A broken 10-curie tritium source in the

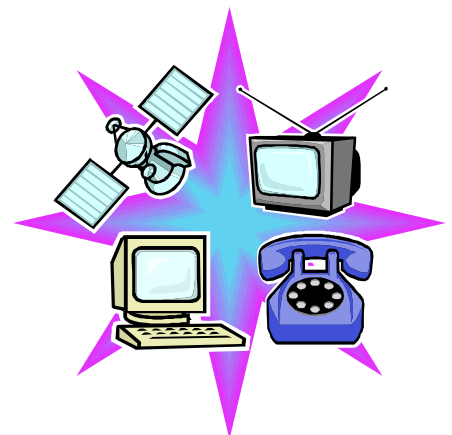
M1A1 Collimator has the potential to create a significant trail of tritium oxide contamination if it is not handled properly. The M1A1 Collimator source is in a flat configuration, which makes it easy to break if it is over pressurized during required purging and charging or if it takes a hard knock during use. The carrying case is not gas tight and it will not prevent contamination of any surface on which it is placed. There have been several instances of vehicles and storage areas becoming contaminated after damaged M1A1 collimators have been placed in the carrying case and either transported or stored. Personnel are unnecessarily exposed to tritium oxide when transporting or storing a damaged M1A1 Collimator in its carrying case.

Soldiers should be instructed, that, if the collimator breaks while using it in training, treat it like a 'crime scene.' Don't touch anything! Call the RSO immediately and let her/him/them handle it. The more the soldier transports it; carrying it around, stashing here and there, the more likely they'll contaminate everything in their path—including themselves. If a collimator is damaged, cordon off a respectable distance around it and stay away downwind. Let the RSO handle it.

The illumination test should not be performed on damaged collimators in lieu of double bagging the device. The test is not reliable enough to determine if the source is broken. A wipe test performed by the RSO will give the final verdict on whether or not the device is contaminated. Seal the collimator scope assembly portion in two plastic bags. The RSO should take a wipe test of the damaged device before she/he puts it into the bag. That way she/he doesn't have to reopen the bag again. Of course the RSO should be wearing disposable gloves. If the device is contaminated, dispose of the entire scope assembly as radioactive waste.



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TACOM-Rock Island Safety Office

**Commander
U.S. Army Tank-automotive
and Armaments Command
ATTN: AMSTA-LC-SF**

**TACOM-Rock Island Safety Office
Phone: 309-782-6499
DSN: 793-6499**

**Fax: 309-782-6758
DSN 793-6758**

**Email:
AMSTA-LC-SF@ria.army.mil**

Visit us on the web!
**[http://www.acala1.ria.army.mil/LC/
R/RS/safe.htm](http://www.acala1.ria.army.mil/LC/R/RS/safe.htm)**

Chief, Safety Office

Vernon Vondera, DSN 793-1690, vonderav@ria.army.mil
Commercial (309) 782-1690

Health Physicists

Jeff Havenner, DSN 793-2965, havennerj@ria.army.mil
Tim Mohs, DSN 793-6228, mohst@ria.army.mil
Gavin Ziegler, DSN 793-2995, zieglerg@ria.army.mil
Commercial (309) 782-2965/6228/2995

Contractor Staff

Kenneth Baugh, Health Physicist, baughk@ria.army.mil
DSN 793-5979, Commercial (309) 782-5979
Florentino "Dante" Laciste, Jr. (Trainer), lacistef@ria.army.mil
DSN 793-6020, Commercial (309) 782-6020/5979

Trainers

Wayne Cook, DSN 793-2429, cookw@ria.army.mil
Ignacio Nevarez, DSN 793-0265, nevarezi@ria.army.mil
Commercial (309) 782-2429/0265

Safety Office Address/Fax/Email

**Commander
U.S. Army Tank-automotive and Armaments Command
ATTN: AMSTA-LC-SF
Rock Island, IL 61299-7630
FAX DSN 793-6758, amsta-lc-sf@ria.army.mil
Commercial (309) 782-6499, (309) 782-6758**

